

AMENDMENTS TO THE CLAIMS

1. (Cancelled) Isolated nucleic acid having at least 80% nucleic acid sequence identity to a nucleotide sequence that encodes an amino acid sequence selected from the group consisting of the amino acid sequence shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) and Figure 46 (SEQ ID NO:80).

2. (Cancelled) Isolated nucleic acid having at least 80% nucleic acid sequence identity to a nucleotide sequence selected from the group consisting of the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 3 (SEQ ID NO:8), Figure 5 (SEQ ID NO:10), Figure 7 (SEQ ID NO:15), Figure 9 (SEQ ID NO:17), Figure 11 (SEQ ID NO:22), Figure 13 (SEQ ID NO:28), Figure 15 (SEQ ID NO:34), Figure 17 (SEQ ID NO:39), Figure 19 (SEQ ID NO:44), Figure 21 (SEQ ID NO:49), Figure 23 (SEQ ID NO:51), Figure 25 (SEQ ID NO:56), Figure 27 (SEQ ID NO:58), Figure 29 (SEQ ID NO:60), Figure 31 (SEQ ID NO:62), Figure 33 (SEQ ID NO:64), Figure 35 (SEQ ID NO:66), Figure 37 (SEQ ID NO:71), Figure 39 (SEQ ID NO:73), Figure 41 (SEQ ID NO:75), Figure 43 (SEQ ID NO:77) and Figure 45 (SEQ ID NO:79).

3. (Cancelled) Isolated nucleic acid having at least 80% nucleic acid sequence identity to a nucleotide sequence selected from the group consisting of the full-length coding sequence of the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 3 (SEQ ID NO:8), Figure 5 (SEQ ID NO:10), Figure 7 (SEQ ID NO:15), Figure 9 (SEQ ID NO:17), Figure 11 (SEQ ID NO:22), Figure 13 (SEQ ID NO:28), Figure 15 (SEQ ID NO:34), Figure 17 (SEQ ID NO:39), Figure 19 (SEQ ID NO:44), Figure 21 (SEQ ID NO:49), Figure 23 (SEQ ID NO:51), Figure 25 (SEQ ID NO:56), Figure 27 (SEQ ID NO:58), Figure 29 (SEQ ID NO:60), Figure 31 (SEQ ID NO:62), Figure 33 (SEQ ID NO:64), Figure 35 (SEQ ID NO:66), Figure 37 (SEQ ID NO:71), Figure 39 (SEQ ID NO:73), Figure 41 (SEQ ID NO:75), Figure 43 (SEQ ID NO:77) and Figure 45 (SEQ ID NO:79).

4. (Cancelled) Isolated nucleic acid having at least 80% nucleic acid sequence identity to the full-length coding sequence of the DNA deposited under any ATCC accession number shown in Table 7.

5. (Cancelled) A vector comprising the nucleic acid of any one of Claims 1 to 4.

6. (Cancelled) The vector of Claim 5 operably linked to control sequences recognized by a host cell transformed with the vector.

7. (Cancelled) A host cell comprising the vector of Claim 5.

8. (Cancelled) The host cell of Claim 7, wherein said cell is a CHO cell.

9. (Cancelled) The host cell of Claim 7, wherein said cell is an *E. coli*.

10. (Cancelled) The host cell of Claim 7, wherein said cell is a yeast cell.

11. (Cancelled) A process for producing a PRO polypeptides comprising culturing the host cell of Claim 7 under conditions suitable for expression of said PRO polypeptide and recovering said PRO polypeptide from the cell culture.

12. (Cancelled) An isolated polypeptide having at least 80% amino acid sequence identity to an amino acid sequence selected from the group consisting of the amino acid sequence shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) and Figure 46 (SEQ ID NO:80).

13. (Cancelled) An isolated polypeptide scoring at least 80% positives when compared to an amino acid sequence selected from the group consisting of the amino acid sequence shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40

(SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) and Figure 46 (SEQ ID NO:80).

14. (Cancelled) An isolated polypeptide having at least 80% amino acid sequence identity to an amino acid sequence encoded by the full-length coding sequence of the DNA deposited under any ATCC accession number shown in Table 7.

15. (Cancelled) A chimeric molecule comprising a polypeptide according to any one of Claims 12 to 14 fused to a heterologous amino acid sequence.

16. (Cancelled) The chimeric molecule of Claim 15, wherein said heterologous amino acid sequence is an epitope tag sequence.

17. (Cancelled) The chimeric molecule of Claim 15, wherein said heterologous amino acid sequence is a Fc region of an immunoglobulin.

18. (Cancelled) An antibody which specifically binds to a polypeptide according to any one of Claims 12 to 14.

19. (Cancelled) The antibody of Claim 18, wherein said antibody is a monoclonal antibody, a humanized antibody or a single-chain antibody.

20. (Cancelled) Isolated nucleic acid having at least 80% nucleic acid sequence identity to:

c) (a) a nucleotide sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), lacking its associated signal peptide;

(b) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40),

Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), with its associated signal peptide; or

(c) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), lacking its associated signal peptide.

21. (Cancelled) An isolated polypeptide having at least 80% amino acid sequence identity to:

(a) the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), lacking its associated signal peptide;

(b) an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29),

Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), with its associated signal peptide; or

(c) an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:16), Figure 10 (SEQ ID NO:18), Figure 12 (SEQ ID NO:23), Figure 14 (SEQ ID NO:29), Figure 16 (SEQ ID NO:35), Figure 18 (SEQ ID NO:40), Figure 20 (SEQ ID NO:45), Figure 22 (SEQ ID NO:50), Figure 24 (SEQ ID NO:52), Figure 26 (SEQ ID NO:57), Figure 28 (SEQ ID NO:59), Figure 30 (SEQ ID NO:61), Figure 32 (SEQ ID NO:63), Figure 34 (SEQ ID NO:65), Figure 36 (SEQ ID NO:67), Figure 38 (SEQ ID NO:72), Figure 40 (SEQ ID NO:74), Figure 42 (SEQ ID NO:76), Figure 44 (SEQ ID NO:78) or Figure 46 (SEQ ID NO:80), lacking its associated signal peptide.

22. (Currently Amended) An isolated nucleic acid having at least 80% nucleic acid sequence identity to:

C¹
(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~_____ (c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~_____ (d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

~~(e)(c)~~ the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(f)(d)~~ the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or

~~(g)(f)~~ the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

23. (Currently Amended) The isolated nucleic acid of Claim 22 having at least 85% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

~~(e)(c)~~ the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(f)(d)~~ the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or

~~(g)~~(f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

24. (Currently Amended) The isolated nucleic acid of Claim 22 having at least 90% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~—— (c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~—— (d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

c) ~~(e)~~(c) the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(f)~~(d) the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or

~~(g)~~(f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

25. (Currently Amended) The isolated nucleic acid of Claim 22 having at least 95% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~—— (c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~—— (d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

~~(e)(c)~~ the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(f)(d)~~ the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or

~~(g)(f)~~ the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

26. (Currently Amended) The isolated nucleic acid of Claim 22 having at least 99% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~—— (c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~—— (d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

- (e)(c) the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1);
(f)(d) the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or
(g)(f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

27. (Currently Amended) An isolated nucleic acid comprising:

- (a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2);
(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
~~(c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~
~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~
(e)(c) the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1);
(f)(d) the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1); or
(g)(f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203581.

28. (Currently Amended) The isolated nucleic acid of Claim 27 comprising a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2).

29. (Currently Amended) The isolated nucleic acid of Claim 27 comprising a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide.

30. (Cancelled) The isolated nucleic acid of Claim 27 comprising a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2).

31. (Cancelled) The isolated nucleic acid of Claim 27 comprising a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide.

32. (Currently Amended) The isolated nucleic acid of Claim 27 comprising the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO: 1).

33. (Currently Amended) The isolated nucleic acid of Claim 27 comprising the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO: 1).

34. (Previously Added) The isolated nucleic acid of Claim 27 comprising the full-length coding sequence of the cDNA deposited under ATCC accession number 203581.

35. (Currently Amended) An isolated nucleic acid that hybridizes to:

(a) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

(b) a nucleic acid sequence encoding the polypeptide having the sequence of shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~—— (c) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2);~~

~~—— (d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;~~

~~(e)~~(c) the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation;

~~(d)~~(d) the full-length coding sequence of the nucleic acid having the sequence of shown in Figure 1 (SEQ ID NO:1), wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation; or

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(g)(f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203581, wherein said isolated nucleic acid encodes a polypeptide having the ability to induce chondrocyte redifferentiation.

36. (Currently Amended) The isolated nucleic acid of Claim 35, wherein said hybridization occurs under stringent conditions, wherein the stringent conditions comprise:

50% formamide;

5 x SSC (0.75 M NaCl, 0.075 M sodium citrate);

50 mM sodium phosphate (pH 6.8);

0.1% sodium pyrophosphate;

5 x Denhardt's solution;

sonicated salmon sperm DNA (50 micrograms/ml)

0.1% SDS, and 10% dextran sulfate at 42°C;

washes at 42°C in 0.2 x SSC (sodium chloride/sodium citrate) and 50% formamide at 55°C; and

a high-stringency wash consisting of 0.1 x SSC containing EDTA at 55°C.

37. (Previously Added) The isolated nucleic acid of Claim 35 which is at least 10 nucleotides in length.

38. (Previously Added) A vector comprising the nucleic acid of Claim 22.

39. (Previously Added) The vector of Claim 38, wherein said nucleic acid is operably linked to control sequences recognized by a host cell transformed with the vector.

40. (Previously Added) A host cell comprising the vector of Claim 38.

41. (Previously Added) The host cell of Claim 40, wherein said cell is a CHO cell, an *E. coli* or a yeast cell.
